

IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF IOWA
WESTERN DIVISION

SENTENCING MEMORANDUM

Witnesses:

None

Exhibits:

1. IDNR Certified Wastewater Operator Requirements
2. Excerpt from March 2013 Draft Master Plan Concerning Disinfection Problems
- 2A. March 8, 2013 Email Delivering Draft Master Plan to Defendant
3. March 16, 2015 Agreement to Not Finalize Draft Master Plan

Issues:¹

1. Whether an adjustment for aggravated role is appropriate, pursuant to USSG §3B1.1(a)?

¹ Defendant recently moved for a downward variance. See Docs. 20-21. The government will review and respond to the motion in the normal course.

2. Whether an adjustment for abuse of position of trust, or use of special skill, is appropriate, pursuant to USSG §3B1.3?
3. Whether defendant should repay court-appointed counsel fees?

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I. BACKGROUND FACTS

A. Introduction

At all relevant times, defendant Jay Niday was the Superintendent of the City of Sioux City’s (“City”) Wastewater Treatment Plant (“WWTP”). PSR ¶ 41. The WWTP is a large regional sewage treatment facility that treats wastewater before discharging its final product (“effluent”) into the nearby Missouri River under the terms of a Clean Water Act permit issued by the Iowa Department of Natural Resources (IDNR). PSR ¶¶ 17-19, 41. The WWTP treats high-strength wastewater from at least 20 significant industrial users throughout “Siouxland,” a three-state geographic region whose industrial base consists largely of agricultural and food-based processors. PSR ¶¶ 14-18.

In light of the heavy recreational use of the Missouri River in the area, proper disinfection is a critical part of the WWTP’s treatment process. PSR ¶ 20. Disinfection of the WWTP’s wastewater helps to ensure a healthy aquatic environment. *Id.* If insufficiently disinfected, the WWTP’s wastewater may expose recreational users of the Missouri River to various pathogens, including bacteria, viruses, and protozoa. *Id.*

As a condition for permission to discharge effluent into the Missouri River, the IDNR requires the City to disinfect the WWTP’s effluent from March 15 through November 15 of each calendar year. PSR ¶ 21. During this “disinfection season,” the Missouri River is warmer, and the level of the public’s recreational use of the Missouri River is higher. *Id.*² The WWTP was required to disinfect its effluent with liquid chlorine³ and then take certain tests during the disinfection season in order to ensure the Missouri River is safe for recreational use and wildlife. *Id.*

As described in more detail below, no later than about 2012, defendant and other Sioux City officials and employees discovered that the WWTP did not work properly and could not consistently disinfect the millions of gallons of wastewater that

² IDNR classifies the Missouri River as a “Class A1” surface water because of heavy local recreational use. PSR ¶ 18. The IDNR also has classified the Missouri River as an “impaired water” because of pollution. *Id.*

³ The WWTP uses a sodium hypochlorite solution (“liquid chlorine”) to disinfect its wastewater stream. PSR ¶ 25. Because liquid chlorine is toxic to fish and other aquatic life, proper disinfection practices require the subsequent addition of sodium bisulfite to the wastewater stream to reduce the total residual chlorine (“TRC”) in the WWTP’s effluent. *Id.* Sodium bisulfite neutralizes sodium hypochlorite after the sodium hypochlorite destroys pathogens. *Id.* The WWTP’s permit thus included limits on TRC, in order to protect the environment. *Id.*

the WWTP was discharging into the Missouri River each day. Rather than alert the Iowa Department of Natural Resources (IDNR) to this serious problem, however, defendant betrayed the trust of the public and conspired with others, most notably his subordinate shift supervisor Patrick Schwarte, to cheat on the WWTP's required environmental testing. Defendant and his coconspirators employed a fraudulent testing procedure that ensured that the City's WWTP would always pass its effluent tests for fecal coliform, *E. coli*, and total residual chlorine (TRC).⁴

The criminal conspiracy continued until a whistleblower conducted the whistleblower's own testing of the WWTP's effluent, discovered "that the WWTP was in significant violation of its effluent limits," and reported the whistleblower's findings to the IDNR. PSR ¶¶ 76-77.⁵ In June 2015, the City terminated defendant's employment. *Id.*

B. The WWTP Does Not Work

In 2011, defendant had a very serious problem—the WWTP did not work as designed and could not consistently disinfect wastewater. At the same time high-ranking city officials were touting the effectiveness of the WWTP's new "MLE process"

⁴ *E. coli* is a species of fecal coliform bacteria that is specific to fecal material from humans and other warm-blooded animals; its presence tends to indicate fecal contamination of the water. Monitoring is typically for fecal coliform or *E. coli*, as opposed to various individual pathogens of human disease, because there are many different pathogens; pathogens are more difficult to measure; the presence of one pathogen does not necessarily predict the presence of another pathogen; and a specific pathogen may not be present at the time of testing. PSR ¶ 22.

⁵ In about October 2014, the whistleblower called an IDNR official and reported the whistleblower's suspicions to that official. PSR ¶ 76. In November 2014, near the end of that year's disinfection season, the IDNR official asked the defendant if the City was disinfecting with liquid chlorine every day, and the defendant lied and said the City was doing so. *Id.*

to the IDNR in an attempt to convince the IDNR to re-rate the WWTP to increase its treatment capacity,⁶ defendant and one such official had “discovered serious, ongoing disinfection problems at the WWTP.” PSR ¶ 47.

Beginning no later than 2011, and continuing until at least June 2015, defendant and others knowingly withheld from the IDNR serious problems with the MLE process, specifically impacts on disinfection at the WWTP. PSR ¶ 46. In contrast to its advertisements to the IDNR that the MLE process was a success, and requests to the IDNR that the WWTP’s rated capacity should be increased, significant problems with disinfection became apparent shortly after the MLE process came online. *Id.* Defendant and others concealed this fundamental problem with the MLE process from the IDNR and an engineering firm that the City had hired to assist with the re-rating process, because exposure of the WWTP’s disinfection problems would halt the City’s efforts to re-rate the WWTP absent significant capital investment in the WWTP. *Id.*⁷

No later than May 1, 2012, however, defendant notified the engineering firm that the City had hired to oversee construction at the WWTP, CDM Smith, Inc. (“CDM”) about the City’s disinfection problems.” PSR ¶ 49. Defendant reported to

⁶ The City has long sought to recruit and retain industries with high-strength wastewater. PSR ¶ 17. The City uses the purported capacity of the WWTP to attract such industries in an ever-present economic development competition with other municipalities in Iowa and elsewhere. *Id.* Cheating on required environmental tests gave the City an unfair advantage in this competition among municipalities.

⁷ Doing so would also call into question the federal loan disbursements that the City was receiving throughout this timeframe. PSR ¶ 49. The City has received no less than \$16,548,890.91 in federally subsidized loan funds since January 3, 2011. *Id.*

CDM that WWTP operators had “the sodium hypo dosing pumps maxed out and they are still not meeting *E. coli* kill levels for their effluent permit.” *Id.* “CDM indicated that the City had estimated that ‘at the amount of [liquid chlorine] the[y] are feeding currently it will cost \$3m a year in chemical.’” PSR ¶ 50.⁸ “By the end of June 2012, a CDM engineer examining the data that the City provided observed that ‘[t]he effluent nitrite being produced by this plant is the highest I have ever seen.’” PSR ¶ 52.

On August 30, 2012, a CDM engineer informed defendant that “[t]he numbers [for chlorine] . . . are very high and it looks like you still have very high nitrite in the effluent.” Based on the data that the City provided to CDM, a CDM engineer would later conclude that the WWTP’s “chlorine doses were insane to push through the breakpoint” to allow for disinfection. PSR ¶ 60.

By September 2012, a CDM engineer provided defendant with information on toxicity test failures and how to detect nitrification inhibition, which appeared to be causing the problems with the MLE process at the WWTP. PSR ¶ 61. However, locating and eliminating the source of the toxic agent would not be an easy task, especially if there were multiple sources. *Id.*

CDM surmised that “waste from heavy industrial users was inhibiting the MLE process and, in turn, disinfection.” PSR ¶ 51. One engineer believed there was “a clear indication of toxicity, likely from something being discharged by one of their industrial users.” PSR ¶ 52. Although CDM wrote a memorandum to defendant and another City official requesting that the City conduct additional testing and send it to

⁸ According to a 2008 facility plan, the total operating budget at that time was about \$3.5 million, including labor, energy, and expendable supplies (chemicals, maintenance parts, materials, etc.) and replacement reserve. PSR ¶ 50.

CDM, the City never provided all of the data that CDM requested. PSR ¶ 51. Nor did the City contract with CDM to construct a fix to the problem—either an entirely new disinfection system or a temporary ammonia feed system. PSR ¶ 53. Those options “would require significant expense and IDNR approval, as well as expose the City’s lie to IDNR that the MLE process was working well and thus the WWTP should be re-rated to accept more load and flow from the WWTP’s significant industrial users.” *Id.*

C. The Criminal Conspiracy: Rigging the Environmental Tests

Defendant did not report any exceedances of the WWTP’s disinfection permit limits after 2012. PSR ¶ 54. Rather, defendant organized a criminal solution to the problem—a fraudulent testing procedure that ensured that the City would always pass its effluent tests for fecal coliform, *E. coli*, and TRC. PSR ¶ 59.

No later than July 2012, the defendant and Patrick Schwarte, and at least five first-shift operators acting at the direction of the defendant and Schwarte, tampered with the monitoring methods at the WWTP in order to ensure the WWTP would pass all of its tests. PSR ¶ 54. Specifically, early in the morning on testing days for fecal coliform or, after March 2015, testing for *E. coli*, as required by its permit, defendant and Schwarte instructed first-shift operators at the WWTP to increase the rate of liquid chlorine supplied to the wastewater in the online chlorine contact chamber. PSR ¶ 55. After an hour or two passed, and an artificially high level of chlorine was fully mixed into the online chlorine contact basin, the defendant and Schwarte ordered the WWTP’s first-shift operators to use hand-held colorimeters to gauge the levels of chlorine. *Id.* Only when the colorimeter “maxed out” at 2.2 mg/L would the defendant take a sample for fecal coliform or *E. coli*; if the colorimeter read 2.2 mg/L, the

defendant and Schwarte were certain the sample would pass a laboratory analysis on account of the large amount of liquid chlorine in the chlorine contact chamber at that time. *Id.* This fraudulent procedure allowed for the chlorine in the WWTP contact chamber to reach sufficient concentrations to avoid showing elevated levels of fecal coliform or *E. coli*, which would violate the WWTP's permit. *Id.*

The increase in the amount of liquid chlorine supplied to the online chlorine contact basin was substantial but temporary. PSR ¶ 56. Immediately after taking the fraudulent fecal coliform or *E. coli* test, the defendant and Schwarte would instruct the WWTP's operators to lower the rate of liquid chlorine fed to the chlorine contact chamber back to minimal levels. *Id.* The liquid chlorine rate was increased from about 2.5 gallons per hour, to somewhere between 70 to 120 gallons per hour, for up to two hours. *Id.*

On non-testing days, the defendant and Schwarte and others working for the City maintained the chlorine feed rate at minimal levels, well below the designed feed rate of the WWTP and at a rate clearly insufficient to ensure the WWTP consistently and adequately disinfected its wastewater, as the City's permit required. PSR ¶ 57. The engineering firm that designed the liquid chlorine feed system at the WWTP estimated that approximately 16.7 gallons of chlorine would need to be fed per hour, but the City was supplying chlorine to the chlorine contact chambers at a much lower rate. *Id.*

D. The Draft Master Plan

In March 2013, CDM prepared a draft of the Master Plan ("2013 Draft Master Plan") contemplated under its \$1 million "Phase 3" contract with the City. PSR ¶ 64;

Exhibit 2. A CDM representative sent the 2013 Draft Master Plan directly to defendant and another City official in an email. Exhibit 2A.

Section 5 of the Master Plan discussed the disinfection problems at the WWTP at length. PSR ¶ 63; Exhibit 2. CDM examined what sampling defendant had provided to the engineering firm and concluded the MLE process could not provide adequate disinfection of the WWTP's influent given the apparently high toxicity in its significant industrial users' influent. PSR ¶ 64.

In other words, the 2013 Draft Master Plant made crystal clear, in writing no less, that the WWTP did not work. Specifically, the 2013 Draft Master Plan observed:

Due to the inconsistent ammonia concentration, a stable chloramine dose cannot be formed. In addition, the data shows a high concentration of nitrites, which should be less than the nitrates. Nitrites have a high chlorine demand that takes five parts of chlorine to oxidize one part of nitrite. The present of nitrites over nitrates was also an indication that there was toxicity or upset conditions in the MLE process hindering the bacteria from completing the full two step nitrification process. Organic nitrogen was also present upstream of the contact basins, which can also exert a chlorine demand.

PSR ¶ 64; Exhibit 2, p.3.

Defendant did not conduct the recommended additional sampling or follow the recommendations in the 2013 Draft Master Plan. PSR ¶ 66. Instead, defendant instructed CDM to not finalize the 2013 Draft Master Plan into a Final Master Plan, as CDM and the City had originally contemplated under their contract. PSR ¶ 66; Exhibit 3. Defendant told CDM that the City no longer needed a Final Master Plan.

*Id.*⁹

⁹ The City relieved CDM of its contractual obligation to prepare a Final Master Plan and never requested bids for construction of an ammonia injection system. PSR

II. AN AGGRAVATING ROLE ADJUSTMENT IS APPROPRIATE

In Paragraph 86 of the PSR, the USPO correctly scores a four-level increase for aggravating role in the offense, pursuant to USSG §3B1.1(a). Section 3B1.1(a) provides, “[i]f the defendant was an organizer or leader of a criminal activity that involved five or more participants or was otherwise extensive, increase by 4 levels.” Defendant was the organizer and leader of the criminal activity, which involved five or more participants and, in any event, was otherwise extensive.

As indicated in Section I above, defendant was the WWTP’s Superintendent—that is, he was in charge of the entire sewage treatment plant and the top City official working there. PSR ¶¶ 13-17, 41. Defendant supervised Schwarte and the lower-level operators in the operation of the WWTP and directed them to engage in the criminal activity at issue—namely, the rigging of the WWTP’s environmental tests from no later than 2012 through at least June 2015.

See, e.g., PSR ¶¶ 54-59. As the undisputed portions of the PSR make clear, “No later than July 2012, the defendant and Patrick Schwarte, and at least five first-shift operators acting at the direction of the defendant and Schwarte, tampered with the monitoring methods at the WWTP in order to ensure the WWTP would pass all of its tests.” PSR ¶ 54.

Schwarte has already pled guilty to his part in this conspiracy, and so he clearly qualifies as a “participant” in this offense. These five other persons qualify as “participants” in the criminal activity for purposes of USSG §3B1.1, as well,

¶ 66. Nor did the City ever provide a copy of the 2013 Draft Master Plan to the IDNR. *Id.* However, the City continued to press the IDNR to re-rate the WWTP to increase its purported capacity. *Id.*

because those persons could be held criminally responsible for their acts; helping to rig the environmental test results at the WWTP, of course, forms the basis for a number of federal crimes. 33 U.S.C. § 1319(c)(4); 18 U.S.C. § 2; 18 U.S.C. § 371.

As the USPO recognizes, the mere fact that the grand jury has not charged the other five persons is irrelevant to the analysis for aggravating role. *See USSG §3B1.1, comment (n.1).* This is not a case in which one of the other five persons, for example, was an undercover law enforcement officer. *See id.* Further, a supervisor-employee relationship, in which the supervisor instructs the employee to commit acts that form the basis for a crime, may be sufficient to support a role enhancement under USSG §3B1.1. *See, e.g., United States v. Due*, 141 F.3d 1171, 1998 WL 105863, at *1 (8th Cir. 1998) (unpublished per curiam) (affirming role enhancement where part owner and vice president supervised line-level employees in illegal burying of waste); *United States v. Braun*, 60 F.3d 451, 453 (8th Cir. 1995) (affirming supervisor's role enhancement and rejecting arguments that none of his employees were charged by the grand jury, none of the employees benefitted from the illegal conduct, and none of the employees took part in the supervisor's later diversion of funds or investments in the commodities market).

In any event, this criminal activity was clearly "otherwise extensive" and thus defendant qualifies for the four-level aggravating role enhancement under §3B1.1. Under the second prong of §3B1.1(a), which may independently provide grounds for an aggravating role enhancement, "[i]n assessing whether an organization is 'otherwise extensive,' all persons involved during the course of the entire offense are to be considered. *Id.*, comment (n.3). Specifically, a scheme that

“used the unknowing services of many outsiders could be considered extensive.” *Id.* That is certainly the case here, because a large regional waste treatment facility such as the WWTP could not possibly pollute the Missouri River for so many years, without detection no less, absent the unknowing services of many persons. As the Eighth Circuit Court of Appeals observed in *United States v. West*, 942 F.2d 528, 531 (8th Cir. 1991):

[W]e are entirely satisfied that the record supports the finding that the criminal activity was “otherwise extensive.” The “otherwise extensive” language refers “to the number of persons involved in the operation,” *United States v. Boula*, 932 F.2d 651, 654 (7th Cir.1991), and includes “all persons involved during the course of the entire offense,” U.S.S.G. §3B1.1, comment. (n. 2), including “outsiders” who did not have knowledge of the facts. *Id.* In this case, West does not dispute either that he was a supervisor or that at least eight employees participated in the adulteration, though some may have participated without knowledge of the facts making their activities part of a crime. The district court did not err in considering these employees in determining that the criminal activities in this case were “otherwise extensive.”

The same principle as in *West* applies in the case at bar, because defendant was the supervisor in charge of the entire WWTP and at least five employees participated in activities that made the crime possible. Therefore, the Court should overrule defendant’s objection to the four-level increase for aggravating role in the offense under USSG §3B1.1(a).

III. DEFENDANT ABUSED A POSITION OF TRUST AND USED A SPECIAL SKILL¹⁰

In Paragraph 87 of the PSR, the USPO correctly scores a two-level increase, pursuant to USSG §3B1.3, because defendant “abused a position of public . . . trust” and “used a special skill in a manner that significantly facilitated the commission or concealment of the offense.” USSG §3B1.3. Defendant’s position as the WWTP’s Superintendent was “a position of public . . . trust characterized by professional or managerial discretion” for which substantial education, training, and licensing was required. USSG §3B1.3, comment., nn. 1, 3.

As indicated in Part I above, defendant was a certified State of Iowa Grade IV wastewater treatment plant supervisor. PSR ¶ 41. Grade IV certification is the highest grade of certification that the State of Iowa offers, requires four years of post-high school education, two years in direct responsible charge at the Grade III level, and continuing education requirements. *See* 567 Iowa Admin. Code ch. 81; Exhibit 1. A Grade IV certification is required to operate the State’s largest and most complex wastewater treatment plants, such as the WWTP. *See id.*

Defendant possessed extensive training and experience in wastewater treatment. *Id.* Defendant was in charge of the entire WWTP, which was a large regional sewage treatment plant that purported to treat waste for the entire Siouxland region. PSR ¶¶ 14-16.

¹⁰ The parties agree that, with respect to Count 2, pursuant to USSG §3B1.3, if the Court determines an adjustment would apply under USSG §3B1.3, but would be based solely on the use of a special skill and not an abuse of a position of public trust, any such adjustment may not be employed in addition to any adjustment under USSG §3B1.1. *See* USSG §3B1.3.

United States v. Kuhn, 345 F.3d 431, 437 (6th Cir. 2003) is apposite. In *Kuhn*, the Sixth Circuit Court of Appeals affirmed the §3B1.3 enhancement for the superintendent of a WWTP. The Sixth Circuit wrote:

It is clear that the [§ 3B1.3] enhancement was properly applied. Kuhn was a government employee, charged with the safe and efficient operation of a wastewater treatment operation. He was convicted of knowingly causing sewage sludge to be discharged into a navigable waterway and falsifying reports. The statutes that were violated were in place to protect the general public from this sort of activity. It is difficult to see how members of the general public were not in a beneficial relationship with Kuhn, as significant numbers of the public depended upon Kuhn to prevent or ameliorate water pollution in the area. Moreover, his high-level position with respect to his public function of wastewater treatment, contributed in some significant way to facilitating the commission of his offense.

Kuhn, 345 F.3d at 437 (citation and internal quotation marks omitted).

III. ATTORNEY FEES

In relevant part, 18 U.S.C. § 3006A(c) provides that, “[i]f at any time after the appointment of counsel [the district court] finds that the person [for whom counsel is appointed] is financially able to obtain counsel . . . , it may . . . authorize payment as provided in subsection (f), as the interests of justice may dictate.” Subsection (f), in turn, authorizes the district court to direct that the repaid funds be paid to, among other entities, the district court.

Before defendant was indicted Chief United States Magistrate Judge Kelly K.E. Mahoney found that defendant had the ability to pay for his defense and ordered defendant to make \$250 monthly payments. PSR ¶ 121. Defendant made these payments for ten months, for a total of \$2,500, until the Court suspended such payments until such time as defendant was formally charged. *Id.* Those payments

have remained stayed, however, during the pendency of this case. *Id.*

Defendant does not dispute he has the ability to pay a financial penalty, *see* PSR ¶ 122, so it necessarily follows that he is financially able to contribute to the cost of his defense. Although it does not appear that defendant is presently employed, he has a positive net worth, including significant stock holdings and other assets that could be liquidated to defray at least some of the money that taxpayers will otherwise pay toward his defense. PSR ¶ 119. The government takes no position with respect to the particular amount that defendant should be required to repay.

V. CONCLUSION

The Court should find the USPO has correctly determined that defendant's Guidelines range is 30 to 37 months' imprisonment, based upon a total offense level of 19 and a criminal history category I. The Court should sentence defendant within such range, impose a fine, and order defendant to defray the costs of his court-appointed counsel.

CERTIFICATE OF SERVICE

I hereby certify that on March 25, 2021, I electronically filed the foregoing and its attachments with the Clerk of Court using the ECF system which will send notification of such filing to the parties or attorneys of record.

UNITED STATES ATTORNEY

BY: /s/TV

Copy to:
Mr. J.P. Greer
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Respectfully submitted,

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